



ENDANGERED SPECIES TECHNICAL BULLETIN

Department of the Interior • U.S. Fish and Wildlife Service • Endangered Species Program, Washington, D.C. 20240

Service Reviews Woodland Caribou Status

The Service has accepted two petitions to add a small population of woodland caribou (*Rangifer tarandus caribou*) to the U.S. List of Endangered and Threatened Wildlife and Plants (F.R. 2/9/81). Found in northern Idaho, northeastern Washington, and southern British Columbia, this herd is believed to consist of only 20-30 individuals, and is the only herd of caribou still regularly using territory in the conterminous United States.

The woodland caribou is a subspecies of *Rangifer tarandus*, which also includes the reindeer of Eurasia. This subspecies' range once extended from southeastern Alaska and British Columbia to New Foundland and Nova Scotia. In the conterminous United

States, populations are known to have occurred in Washington, Idaho, Montana, Minnesota, Wisconsin, Michigan, Vermont, New Hampshire, and Maine. Killing and habitat alteration by humans accelerated the caribou's disappearance from New England and the Great Lakes States (which occurred by around 1908 and 1940, respectively).

Known as the Selkirk Mountain Herd, these last few remaining caribou in the United States are threatened by continuing habitat reduction. Extensive clearcut logging and fires appear to have seriously reduced the spruce-fir forest on which the subspecies depends for food and cover. Also, human access to caribou habitat via improved

roads, snowmobiles, and utility routes may be contributing to harmful disturbances of caribou.

In view of information presented in the petitions, the Service is now assembling supporting information needed to propose listing the woodland caribou and determine its Critical Habitat.

SERVICE UNDERTAKES FIVE-YEAR REVIEW OF SPECIES

As required under the Endangered Species Act of 1973, as amended, the Service must conduct a review of all listed species at least once every five years. The Service has published a notice (F.R. 2/27/81) that it will review the status of species listed during 1975 and 1976, except those subsequently reclassified for all or a significant part of their populations.

To assist in conducting this review of 202 species, the Service is requesting, from any party, data which might document the need to delist or reclassify any of the species subject to the review.

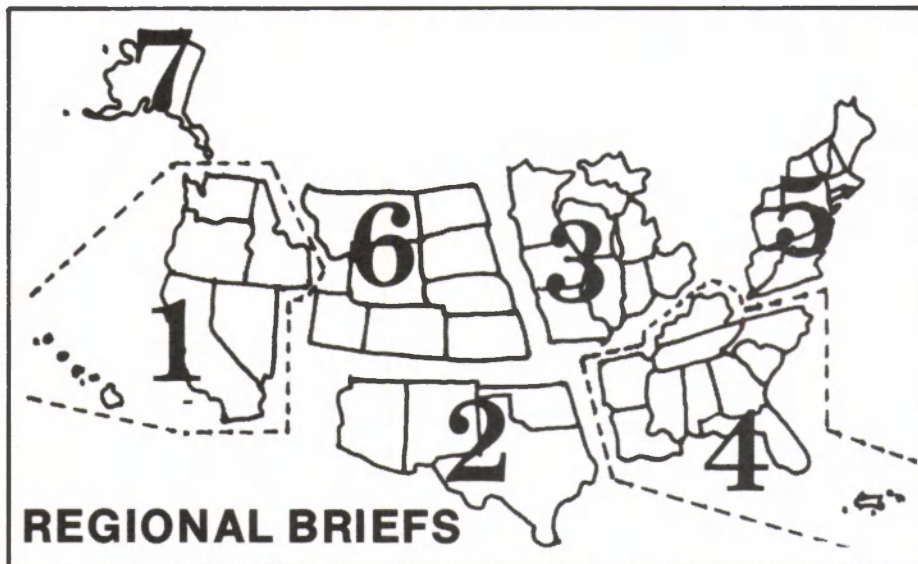
We regret that due to space limitations we are unable to publish a list of affected species, but ask that you consult the February 27, 1981, *Federal Register*.

Comments and data should be sent to the Director (OES), Fish and Wildlife Service, U.S. Department of the Interior, Washington, D.C. 20240, and must be received no later than June 29, 1981.



Photo by Paul Linn

Additional information on this small herd of woodland reindeer is sought by the Service.



Endangered Species Program regional staffers have reported the following activities for the month of February.

Region 1. The second bald eagle conference was held in Klamath Falls,

Oregon. Sponsors of the conference were, again, the Portland Chapter of the Audubon Society, the Fish and Wildlife Service, Oregon Department of Fish and Wildlife, and the National Wildlife Federation.

Region 4. In a biological opinion issued to the Tennessee Valley Authority (TVA) in September 1979, the Service agreed to the completion of Columbia Dam on the condition that TVA develop a successful conservation program for the Endangered mussels to be impacted by the dam. The resulting conservation program has an ultimate objective of establishing new populations of the two affected species, birdwing pearly mussel (*Conradilla caelata*) and Cumberland monkeyface pearly mussel (*Quadrula intermedia*), in other locations.

Before transplanting any of the mussels, however, additional information is needed as to which fish species serve as hosts for the mussels' parasitic larval stage so that prospective transplant sites can be evaluated for the presence of suitable fish hosts. TVA made considerable progress toward this objective during 1980. At least one species of darter, *Etheostoma zonale*, and possibly a second, *E. blennioides*, were found to carry the glochidia of *Conradilla caelata* until transformed into juvenile, free-living mussels. Additional experiments are planned for 1981.

Region 5. Service personnel testified before the Vermont Senate Committee on Energy and Natural Resources regarding the State's proposed endangered species bill. If the bill is passed, the State could enter into a Cooperative Agreement with the Service.

Region 6. Meetings between our Service, the Water and Power Resources Service, and the Northern Colorado Water Conservancy District (NCWCD) have resulted in the NCWCD passing a resolution in favor of a \$550,000 program aimed at minimizing impacts of the Windy Gap Project on the recovery of several species of Endangered fishes in the Colorado River drainage. The program will include a 3-year evaluation of habitat improvement techniques for the Endangered fish species in the Grand Junction, Colorado area and collection of physical data needed to assess the impacts of water depletions, sedimentation, and water quality changes on the life cycles of the fishes. Also, the program would involve the creation or modification of backwater habitat areas along the Colorado River mainstream between the upper end of DeBeque Canyon and the confluence of the Colorado River and the Green River.

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U.S. Fish and Wildlife Regions

Region 1: California, Hawaii, Idaho, Nevada, Oregon, Washington, and Pacific Trust Territories. **Region 2:** Arizona, New Mexico, Oklahoma, and Texas. **Region 3:** Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, and Wisconsin. **Region 4:** Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Puerto Rico, and the Virgin Islands. **Region 5:** Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Virginia, and West Virginia. **Region 6:** Colorado, Kansas, Montana, Nebraska, North Dakota, South Dakota, Utah, and Wyoming. **Region 7:** Alaska.

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RECORD FINE PAID IN ENDANGERED SPECIES IMPORT CASE

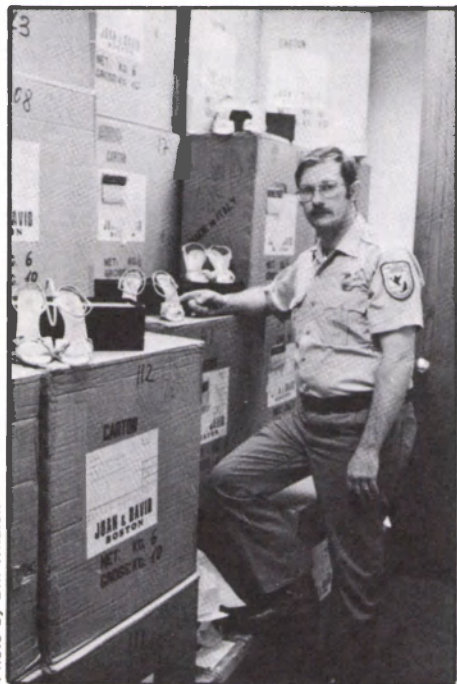


Photo by Bill Whalen

In a case involving the use of a protected species of snake in the manufacture of shoes, a Massachusetts firm agreed to pay a fine of \$15,000 and forfeit 1,325 pairs of shoes which had been seized by U.S. Fish and Wildlife Service agents. The \$15,000 fine, which was paid on January 6, 1981, is the largest penalty ever paid in an Endangered Species case in New England.

The case, which was settled out of court, involved the use of reticulated python (*Python reticulatus*), protected under Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). On December 11, 1978, a shipment of boxes labeled "cobra" and containing "leather footwear for

Fish and Wildlife Service wildlife inspector Ronald Varey with shoes made from reticulated python.

ladies," arrived in Boston for Joan and David Helpern, Inc. A U.S. Customs inspector turned over several of the shoes to the Fish and Wildlife Service for examination. Experts from a local university and the Bronx Zoo determined that the leather used was not cobra, but rather reticulated python.

Based on these findings, the Service's Division of Law Enforcement decided to examine other shoes, invoices, and bills of lading at the Joan and David Helpern, Inc., warehouse. Agents determined that the Helpern firm imported from Italy, 1,983 pairs of shoes made from reticulated python from December 11, 1978, to February 13, 1979. Service agents seized 1,325 pairs of shoes estimated at a gross value of \$106,000.

The Department of the Interior's Regional Solicitor's Office charged the Helpern firm with 20 counts under the Endangered Species Act, including importing wildlife products through a non-designated port, failure to declare wildlife parts and products, and failure to provide proper documentation in the form of re-export permits required under the Act and the CITES.

SURVEY OF MEXICIAN BEACHES CONFIRMS LEATHERBACK NESTING

What may be the world's largest nesting grounds for the Endangered leatherback sea turtle (*Dermochelys coriacea*) was observed in early November on the west coast of Mexico, according to the World Wildlife Fund-U.S. Dr. Peter C. H. Pritchard, Director of the Fund's Marine Turtle Conservation Project and Senior Vice President of the Florida Audubon Society, conducted an aerial survey of more than 600 miles of the Pacific coastline of Mexico and witnessed high density nesting in an area known to Mexican authorities as leatherback habitat. Leatherbacks were found nesting along about half of the surveyed area, roughly from the State of Oaxaca, southward.

Because of new figures resulting from this survey, the estimate for the number of adult breeding female leatherbacks in the world has increased from 29,000-40,000 to 104,000. Dr. Pritchard cautions that the new estimate merely reflects more accurate data, and not a safe population level. According to Dr. Pritchard, "Because of severe stresses on all major populations of the species, its Endangered status is still considered justified."

The leatherback sea turtle is the

largest of the world's marine turtles, weighing between 660 and 1,300 pounds as adults. This turtle is threatened by killing for local consumption and sale of meat and poaching of eggs. Their eggs are considered a delicacy wherever they are found, and leatherback oil is used to caulk boats in the Persian Gulf. Mexican law prohibits killing of leatherbacks, but the practice continues.

Observation of the leatherback nesting grounds was incidental to aerial surveys conducted for a project involving the green sea turtle (*Chelonia mydas*). Funded by the World Wildlife Fund-U.S. and the U.S. Fish and Wildlife Service, this project involves moving eggs to protected areas where they will have a greater chance of successful hatching. Left at unprotected natural sites, "virtually all of the eggs laid annually at these beaches would be lost," due to poachers, selling in local markets, predation by dogs, or other natural factors, according to Dr. Pritchard. During the previous nesting season, almost 270,000 eggs had been moved to protected corrals on natural nesting beaches in Michoacan, Mexico. Of these, about 15,000 had been

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BAY CHECKERSPOT BUTTERFLY STATUS REVIEW

The Service is reviewing the status of the Bay checkerspot butterfly (*Euphydryas editha bayensis*) to determine if it should be added to the U.S. List of Endangered and Threatened Wildlife and Plants. Of the 16 known populations of this butterfly, 14 are extinct or nearly extinct because of housing development, highway construction, livestock grazing, and drought.

Restricted to serpentine grasslands in the San Francisco Bay region of California, the two remaining colonies of this butterfly are Jasper Ridge, on Stanford University's Jasper Ridge Preserve, and Edgewood, in Mateo County.

The Service is seeking the views of the Governor of California regarding proposing this species as Endangered or Threatened. Other interested parties are invited to submit factual information concerning the status of the Bay checkerspot butterfly. Comments and data should be submitted to the Director (OES), U.S. Fish and Wildlife Service, Department of the Interior, Washington, D.C. 20240, by April 1, 1981.

Terry Grubb and Barbara Holder, wildlife biologist volunteers in the Washington Eagle Study, banding a bald eagle at a San Juan Island eagle nest.



Photo by Washington Department of Game

WASHINGTON STATE REPORT:

FAUNA OF SPECIAL CONCERN



Responsibility for the management of Washington State's over 500 non-game wildlife species belongs to its Department of Game. A Nongame Program was established within the Department in 1973, and is now headed by Mr. Jon A. Gilstrom, Program Manager.

Funding for the Nongame Program is produced through a State "vanity license plate" program which was instituted in 1973 by a State legislative referendum. The program which offers personalized automobile tags to private citizens, produced \$40,000 in its first year—in 1980 the program netted \$418,000 for State nongame species management.

Over a dozen conservation groups in the State actively promoted the es-

tablishment of the "vanity license plate" program and were helpful in securing public support. The Washington public voted in favor of the legislative referendum by a 2 to 1 margin.

Federal Assistance

Washington's Nongame Program was well underway, when the U.S. Fish and Wildlife Service signed the first State Cooperative Agreements under Section 6 of the Endangered Species Act of 1973. Washington State was among the first 11 States to sign an agreement with the Service on June 23, 1976, thereby qualifying for two-thirds funding on a number of endangered species projects.

Three species native to Washington

are listed for protection under the 1973 Act, as amended: American peregrine falcon (*Falco peregrinus anatum*), bald eagle (*Haliaeetus leucocephalus*), and Columbian white-tailed deer (*Odocoileus virginianus leucurus*). Over the past 4 years, all of these species have been subjects of State field work funded through the grant-in-aid program.

American Peregrine Falcon

Presently, there exist no published studies on the peregrine in Washington State. Illustrative of the lack of peregrine data in the State is the fact that disagreement exists, even as to which subspecies (*anatum* or *pealei*), or both, occur in Washington as breed-

Recent studies indicate that Washington State hosts a relatively large population of American peregrine falcons.



Photo by Amos Eno

ing birds.

However, one detailed field study on the winter ecology of the peregrine in the Puget Sound area was conducted by Clifford M. Anderson and Paul DeBruyn. The study, which began in 1976 and was continued under contract to the State from 1978-1980, included radio-monitoring of peregrine movements in the Puget Sound area. The team succeeded in tracing the migratory pattern of one falcon which proved to nest in south-central British Columbia, Canada, and winter in Washington, giving strong reason to believe that the falcon was of the *anatum* subspecies, rather than *pealei*.

In 1978, in an effort to establish an estimate of a breeding population in the State, the Nongame Program initiated a peregrine study to gather habitat utilization data. One facet of this study was to search existing literature, extract all eyrie and sighting records from the data and pinpoint them on maps for future investigation. Since that time, all known historic eyries have been visited by State personnel, but none were found to be active. However, three other active sites were found, two of which produced young in 1980.

Cumulative results of the peregrine study indicate that the wintering population of peregrines in Washington is relatively large and that Washington, indeed, is an important habitat area for the falcon. Peregrines have been sighted mainly in Grays' Harbor, the Samish Bay area, and Willapa Bay.

Other results of the study include the determination of the peregrine prey species in the Samish area, an analysis of prey remnants from nests, and a preliminary study of egg shell thinning from fragments found in a single nest. (No thinning was apparent from this sample.)

A new population of Columbian white-tailed deer was found on islands in the Columbia River.



Photo by Columbian White-tailed Deer National Wildlife Refuge/U.S. F.W.S.

Aerial surveys of the mountainous areas of Washington have been conducted, during which habitat was subjectively categorized as to potential for peregrine use. Areas of high probability were noted on maps for future searches.

The Nongame Program is considering the possible release of captive-bred falcons into the State in the near future.

Public Awareness of Bald Eagles

Four public service announcements (PSA's) produced last fall by the Washington Eagle Study, a facet of the State Nongame Program, have gone a long way towards informing Washingtonians regarding the bald eagle. These four spots have been shown repeatedly in prime-time on the main Seattle TV stations, since last fall. The PSA's cover four separate topics: (1) the fact that eagles exist in Washington; (2) the effects of human disturbance on eagles; (3) bald eagle dependence on natural runs of anadromous salmon; and (4) the communal nature of bald eagles.

In June 1980, a Bald Eagle Symposium featuring 24 separate talks on bald eagles in Washington, surrounding States, and British Columbia, was conducted. The symposium, while in-

itiated by the Washington Eagle Study, was actively supported by nine conservation groups in the State. Proceedings from this symposium are now available (see New Publications—last page of this BULLETIN).

Another indication of interest in bald eagles is demonstrated by the fact that nearly 800 Washingtonians participated in the 1981 winter bald eagle survey sponsored by the National Wildlife Federation. Interest in nesting populations in Washington is nurtured by the Washington Eagle Study personnel who individually contact owners of bald eagle nest habitat, give them a record of nest productivity on their land each summer, and conduct "circuit talks" in the Skagit area, speaking to habitat user groups.

Bald Eagle Habitat

Eagles inhabit river, lake and coastal shorelines almost exclusively. Active nest sites in Washington are found predominantly in the San Juan Islands, on the Olympic Peninsula and on Puget Sound. In winter, eagles tend to congregate in numerous areas but are especially abundant on the northwest Washington salmon drainages.

The question of movement to and from Washington is still speculative

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STATE REPORT

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although information is beginning to accumulate from marking and radio-tagging studies. The source of most wintering subadults appears to be coastal and interior British Columbia, the San Juan Islands, and southern Alaska. Further research is needed to delineate the migratory paths of adult birds to nesting territories.

Until recently, surprisingly few formal studies of bald eagles in Washington were conducted and the results of those which were done in the past decade do not provide a complete understanding of the species life history. However, if bald eagles are to remain in Washington, it is clear that

habitat (i.e., nesting territories, food sources and feeding grounds, perching and roosting sites) must be protected.

Ongoing eagle studies which began in 1979 are being carried out by the Washington Eagle Study. The program, partially funded by Federal Aid, has as its objectives to identify the nesting and wintering ecology of the bald eagle in Washington and to provide a strong education and management program for the eagle.

In June 1980, ten bald eagle nest trees were climbed (one nest was on the Washington coastline while the other 9 were on the San Juan Islands) and a total of 13 young eagles were banded with U.S. Fish and Wildlife Service bands. These were the first nest trees ever to be climbed and the

first eaglets ever banded in Washington.

The same studies included the collection of prey remains from each of the 10 bald eagle nests investigated. Chief prey species were found to be glaucous-winged gulls (*Larus glaucescens*) and European rabbits (*Oryctolagus cuniculus*). Analysis of the gull remains showed levels of contamination which should be monitored; the rabbits, however, tested "clean." Blood for pesticide, heavy metal, and PCB analysis was taken from the 11 eaglets, as well as cloacal swabs for viral and bacterial analysis.

A literature search and annotated bibliography on Washington bald eagles was completed several years ago. Continued studies will help define and delineate the bald eagle popula-

LEATHERBACK NESTING

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confiscated from poachers.

Dr. Pritchard reported that the presence of his small aircraft acted as a deterrent to illegal hunting. Virtually all daytime turtle hunting at sea was eliminated, as fishermen, mindful of the aircraft overhead, appeared to be afraid of being discovered and having their boats and motors confiscated.

In the U.S., the Fish and Wildlife Service and the National Marine Fisheries Service (NMFS), which share Federal responsibility for protecting sea turtles, have each designated Critical Habitat for the leatherback sea turtle. The only major leatherback nesting area under U.S. jurisdiction, Sandy Point Beach, St. Croix, U.S. Virgin Islands, was designated as Critical Habitat by the Fish and Wildlife Service (F.R. 9/26/78). NMFS designated the adjacent waters (F.R. 3/23/79) which are used for breeding

and access to and from the nesting beach. The designations require Federal agencies to insure that actions they authorize, fund, or carry out are not likely to result in the destruction or adverse modification of these Critical Habitats.

As for other areas that may also be used by leatherbacks for nesting, Jack Woody of the Service's Albuquerque Regional Office says there is suspected leatherback nesting in Central America, but there has not been time or funds available to investigate.



Photo courtesy of World Wildlife Fund-U.S.

This just-hatched leatherback sea turtle, measuring 2½ inches long and weighing 1 ounce, will grow to as much as 1,300 pounds as an adult.

tion in Washington.

Columbian White-tailed Deer

The Endangered Columbian white-tailed deer was once abundant in the low and moist prairie habitat of the Willamette River Valley of Oregon and northward across the Columbia River into the river valleys of southern Washington. Suppression of burning by the Indians and conversion of land for agricultural uses have eliminated native-herb association upon which the deer depended. The animal was also shot for food and sport until early in this century, by which time they were extirpated from most of their former range.

It was not until 1972, when the Columbia White-Tailed Deer National

Wildlife Refuge (CWTD-NWR) was created that applied research of the species occurred on a regular basis. As a result, data pertinent to the needs of the lower Columbian population have only recently become available.

The refuge herd now numbers approximately 150-200 individuals, and is biologically secure. The potential for total eradication of the refuge herd and nearby deer through disease or other catastrophic events is recognized, however, and emphasis on off-refuge conditions will, of necessity, become the focal point of future studies. Accordingly, the Columbian White-Tailed Deer Recovery Plan calls for establishment of five independent subpopulations, totaling 600+ animals, as a means of attaining taxonomic security. Capturing and transplanting animals on selected sites, and the location of yet undiscovered individuals are two methods suggested in the Plan.

A survey of islands in approximately 107 miles of the Columbia River, conducted by biologists of the Washington Nongame Program in 1978 and 1979, yielded valuable information for the management and survival of the deer. A previously undiscovered population, numbering between 70-80 individuals, was found on a cluster of five islands (Wallace, Anunde, Kinnunen Cut, Little Wallace, and Skull).

Three additional islands (Government, Cottonwood, and Crims) were also identified as potential transplant sites for the species. Unfortunately, these islands have been covered with dredge material removed from the river following the recent eruption of Mt. St. Helens.

Prior to the survey, only two populations of the white-tailed deer were known to exist west of the Cascades. One of the groups, which includes the CWTD-NWR herd, is along the lower portion of the Columbia River. The second is in Douglas County, Oregon, and is known as the Roseburg population.

The Nongame Program also recently sponsored a Columbian white-tailed deer forage-relations study, done through the University of Washington. This study, conducted on the CWTD-NWR should assist in clarifying feeding and habitat preferences of the species. The study included the development of habitat selection guidelines for use in reestablishing the deer in selected former habitats.

Other Species of Concern

The Nongame Program has given special emphasis to a number of other State species whose status are not

well known. Among these are Cascade red fox (*Vulpes vulpes necator*), white pelican (*Pelecanus erythrorhynchos*), ferruginous hawk (*Bufo regalis*), and Larch Mountain salamander (*Plethodon larselli*).

Data Collection

The emphasis of the Nongame Program in its initial years of existence was mainly that of collecting species' data since very little management information was available. Subsequently, a data bank and retrieval system was developed, in conjunction with the Washington Natural Heritage Program, to store and collate data on sensitive animal and plant species in the State.

Over 100,000 records from the scientific literature, interview information, museums, information from field personnel and individual observations, have been collected on nongame species since 1977. Over 7,000 records on approximately 228 animal species of concern have been computerized, providing rapid access to species specific or location specific data. This service has been in existence since the fall of 1980.

Information which is accepted for the data bank must be on species which meet the following criteria. They must be: (1) vulnerable to impacts do to (a) specialized ecological requirements, (b) population concentrations, (c) threats by land practices or pollution; (2) rarity; or (3) uniqueness or specific scientific value. The data bank is utilized as a resource from which the State counsels planning commissions, State and Federal agencies, and individual landowners in efforts to maintain essential habitat from development and/or other disturbances.

Fact sheets, written from information contained in the data bank on approximately 50 different nongame species of concern, are now in preparation and are tentatively scheduled for completion by the fall of 1981.

Plant Conservation

Washington State has a second Cooperative Agreement with the Federal Government—this one for the conservation of native plants. Funds made available from this agreement made between the Service and the Washington Department of Natural Resources are currently assisting with the accomplishment of plant surveys and other efforts to gather and evaluate data. The plant program is carried out by the Nature Conservancy staff in the Washington Natural Heritage Program.

The BULLETIN staff hopes to feature State plant conservation programs within the next few months.

SYMPOSIUM

The Georgia Department of Natural Resources and the Georgia Chapter of The Wildlife Society are sponsoring a Nongame and Endangered Wildlife Symposium, to be held August 13-14, 1981, in Athens, Georgia.

Nearly 30 speakers from a dozen States will present papers on nongame/endangered species research and management, status reviews, legislation, funding, and law enforcement. The symposium will be held at the University of Georgia Center for Continuing Education.

For further information, write Department of Natural Resources, Nongame/Endangered Species Program, Route 2, Box 119A, Social Circle, Georgia 30279.

CORRECTION IN ZEBRA LISTING

The Service has published a correction (F.R. 2/10/81) of an error in the listing of the mountain zebra (*Equus zebra*), appearing in the May 20, 1980, Republication of Lists of Endangered and Threatened Species. In that republication, *Equus zebra* was listed as an Endangered species when actually, only the subspecies *E. z. zebra* is officially classified as an Endangered species. The other subspecies of mountain zebra, *E. z. hartmannae*, is listed as Threatened (F.R. 8/21/79). *E. z. hartmannae* is also listed on Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora, thus allowing for import of legally taken sport hunting trophies.

The Service regrets any misunderstanding or inconvenience caused by the error.

NEW PUBLICATIONS

Rare Plant Conservation: Geographical Data Organization, to be published May 1, 1981, by the New York Botanical Garden, contains 24 papers based on lectures and discussions at a November 1977 symposium. Included are guidelines for the preparation of status reports on rare or endangered plant species, as well as the text of the Endangered Species Act of 1973, with discussions of the 1978 and 1979 amendments. During a special pre-publication offer, which expires May 1, this book will be available for \$19.95 plus postage and handling. After May 1 the price will be \$25.00 plus postage and handling. Postage and handling is \$1.25 for U.S. orders, and \$2.00 for non-U.S. orders. Send orders to *Rare Plant Conservation*, Publications office, The New York Botanical Garden, Bronx, New York 10458.

Placing Animals and Plants on the List of Endangered and Threatened Species, a new brochure developed by the Service's Endangered Species Program, is now available. As well as explaining the listing process, this pamphlet includes an outline of data needed to support petitions for listing species under the Endangered Species Act of 1973, as amended. To request a copy, write to the Office of Endangered Species, U.S. Fish and Wildlife Service, Department of the Interior, Washington, D.C. 20240.

A comprehensive reference entitled *Mammalian Status Manual* provides an account of mammalian species and subspecies considered to be endangered, threatened, and rare within each of the fifty reporting States. This publication is available for \$18.95 from Linton Publishing Company, Box 998, Route 6, North Eastham, Massachusetts 02651.

BOX SCORE OF SPECIES LISTINGS

Category	Endangered		Threatened		Species Total
	U.S.	Foreign	U.S.	Foreign	
Mammals	32	241	3	21	279
Birds	66	159	3	0	214
Reptiles	13	61	10	4	75
Amphibians	5	8	3	0	16
Fishes	34	15	12	0	57
Snails	2	1	5	0	8
Clams	23	2	0	0	25
Crustaceans	1	0	0	0	1
Insects	7	0	6	1	13
Plants	51	2	8	3	61
TOTAL	234	489	50	29	749

Number of species currently proposed: 18 animals
11 plants

Number of Critical Habitats listed: 48
Number of Recovery Teams appointed: 68
Number of Recovery Plans approved: 39
Number of Cooperative Agreements signed with States:
37 fish & wildlife
8 plants

February 28, 1981

The Box Score does not reflect the listings of the genus Achatinella, gypsum wild buckwheat, Todsen's pennyroyal, or Texas poppy-mallow because of the delay in the effective dates for these rulemakings. (See February 1981 BULLETIN.)

Copies of the *Proceedings of the Washington Bald Eagle Symposium, June 1980*, edited by Knight, Allen, Stalmaster, and Servheen are available for \$10.00 from the Nature Conservancy, 618 Smith Tower Building, Seattle, Washington 98104.

Assistance in locating copies of the *Federal Register*, may be found by consulting the complete listing of *Government Depository Libraries*, available free from The Library, U.S. Government Printing Office, 5235 Alexandria Avenue, Alexandria, Virginia 22304. Depository libraries throughout the country carry both the *Federal Register*

and the *Code of Federal Regulations*, the repositories of all the Federal government's planned and promulgated rules and regulations.

The Worldwide Distribution of Sea Turtle Nesting Beaches, compiled by James Sternberg, has been published by the Sea Turtle Rescue Fund, Center for Environmental Education. The publication contains six maps, providing the most exhaustive compilation of data to date, and an introduction by Peter Pritchard. To order, send \$6.95 to the publishers at 1925 K Street, N.W., Suite 206, Washington, D.C. 20006, or call 202/466-4996.



ENDANGERED SPECIES TECHNICAL BULLETIN

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